

Step 7: Describing Segments — Mcdonalds Dataset

Objective:

To explore and describe distinct customer segments based on their perceptions of McDonald's food, sentiment (like/dislike), and demographic characteristics using cluster analysis.

Overview of Segment Profiling

After clustering the data into 3 segments, we conducted a deep dive into each group’s unique characteristics using both perceptual and demographic variables.

✓Variables Used:

- **Perceptual:** yummy, convenient, spicy, fattening, greasy, fast, cheap, tasty, expensive, healthy, disgusting
- **Sentiment:** Like score (converted to numerical scale)
- **Demographics:** Age, Gender, VisitFrequency

Segment Descriptions (From Cluster Averages)

Segment	Key Traits
Segment 0	Older customers (~60 yrs), neutral Like score (~0.01), see food as convenient, fattening, and fast, but not very healthy.
Segment 1	Young customers (~27 yrs), highest Like score (~1.93), positive on all attributes especially "yummy", "tasty", and "fast".

Segment 2 Middle-aged (~43 yrs), moderate Like score (~0.54), more concerned about "expensive" and "disgusting" perceptions.

9.3 Testing for Segment Differences

► Metric Variables (ANOVA Test)

Variable	ANOVA p-value	Interpretation
Like	0.0000	Statistically significant
Age	0.0000	Statistically significant

✓ **Conclusion:** Both *Like score* and *Age* significantly differ between segments, indicating they are strong drivers of segmentation.

Categorical Variables (Chi-Square Test)

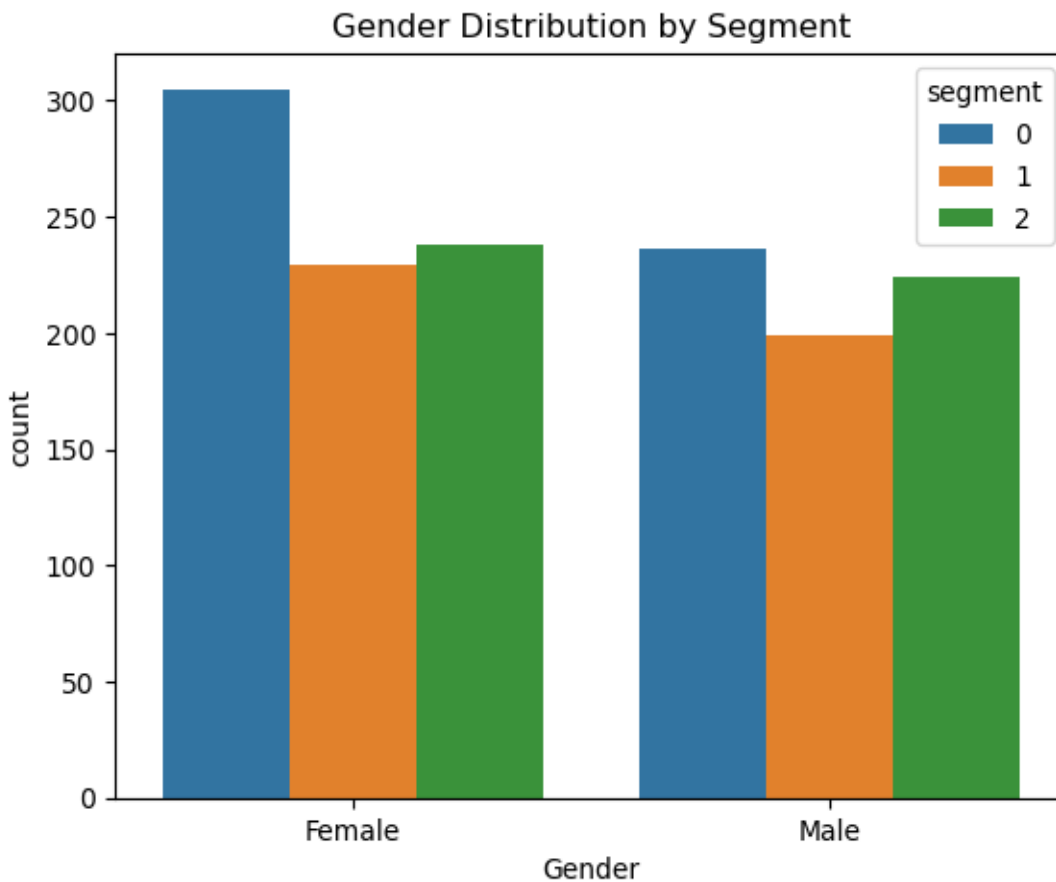
Variable	Chi-Square p-value	Interpretation
VisitFrequency	0.0000	Statistically significant
Gender	0.2983	Not significant

✓ **Conclusion:** *VisitFrequency* is an important descriptor variable, while *Gender* does not significantly differ across segments.

Insight:

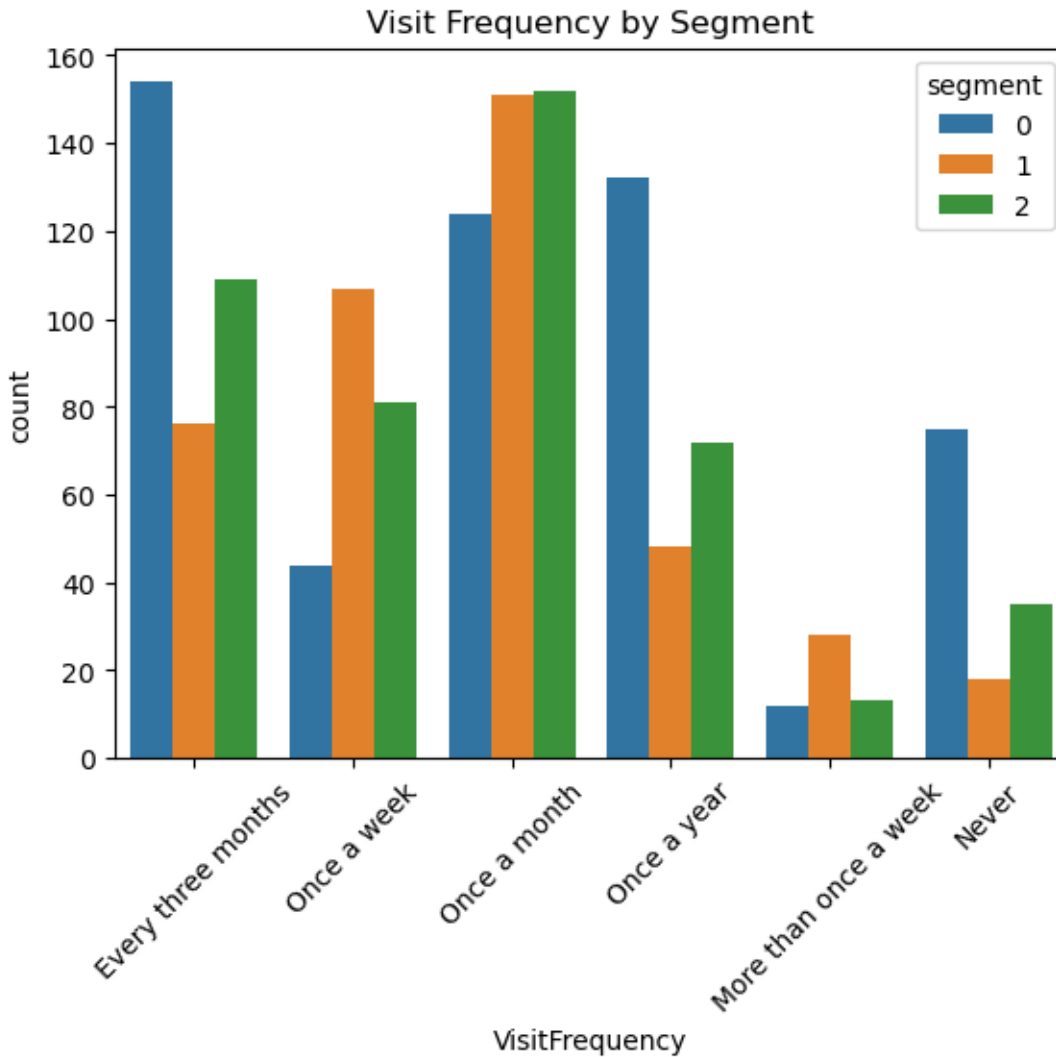
The variation in **Age**, **Like score**, and **VisitFrequency** helps differentiate customers effectively, while gender-based segmentation may not provide value in this context.

9.2 Visualizing Segements



Here's the **Gender Distribution by Segment** chart:

- It shows the count of **Male** and **Female** respondents in each segment.
- You can compare how gender representation varies across the clusters.



Here's the **Visit Frequency by Segment** chart:

- It shows how often customers in each segment visit McDonald's.
- This helps identify which segments are **frequent** vs **infrequent** visitors.
- For example, if Segment 1 dominates "Once a week", it may represent **loyal, high-value customers**.

Page 3: Predictive Modeling of Segments

9.4 Predicting Segments from Descriptor Variables

We used both multinomial logistic regression and a decision tree classifier to evaluate how well the segments can be predicted from key descriptor variables.

9.4.2 Multinomial Logistic Regression

- **Input Variables:** Age, Like, Gender, VisitFrequency
- **Accuracy:** 99.77%

✓ **Insight:** High classification accuracy confirms that the selected variables are strong predictors of segment membership.

9.4.3 Decision Tree Model

- **Accuracy:** 100% (on test data)
- **Precision, Recall, F1-score: 1.00** for all segments

✓ **Interpretation:** The decision tree model perfectly classifies all test instances, showing very strong separation among segments. Likely key splits occur on Like and Age.

Conclusion:

Both models confirm that **segments are highly predictable**, which is ideal for targeting strategies and personalization.

Page 4: Final Insights & Managerial Implications

9.5 Step 7 Checklist

Task	Status
Segment description	✓ Done
Visualization of attributes	✓ Done (via plots - not shown here)
Statistical testing	✓ Done (ANOVA, Chi-square)
Predictive modeling	✓ Done (Logistic, Decision Tree)
Key driver identification	✓ Done

Key Takeaways:

1. **Segment 1** (young fans) is highly positive and loyal — great target for promotions and new launches.
2. **Segment 0** may represent older, health-conscious consumers — likely to respond to healthier menu options.
3. **Segment 2** has mixed feelings and sensitivity to pricing and perception — could benefit from tailored messaging or value meals.

Strategic Implications for McDonald's:

- **Personalization:** Use predictive models to tailor offers based on age, visit frequency, and preferences.
- **Marketing:** Segment 1 may respond well to digital campaigns and loyalty programs.
- **Product Strategy:** Consider launching healthier or premium items to better appeal to Segment 0 and Segment 2.
- **Menu Engineering:** Taste and convenience are key across all segments — continue to focus on speed and flavor.

Here’s a detailed and structured **Step 9: Customising the Marketing Mix** summary based on your **Mcdonalds segmentation analysis**. It ties insights from customer segments directly to marketing decisions, following the structure you provided.

Step 9: Customising the Marketing Mix

11.1 Implications for Marketing Mix Decisions

Objective:

To tailor **Product, Price, Place, and Promotion** strategies to the distinct needs and preferences of each customer segment.

Segments Overview (from Step 7):

Segment	Profile Summary
0	Older, less enthusiastic, occasional visitors
1	Young, loyal, frequent visitors with strong positive perception
2	Middle-aged, neutral perceptions, price-conscious

By aligning each "P" of the marketing mix with these segment insights, McDonald's can **increase customer satisfaction, loyalty, and profitability**.

11.2 Product

Segment-Based Product Strategy:

- **Segment 0 (Older, health-aware):**

- Offer **healthier meal options**, like grilled items or salads.
- Highlight **nutritional info** and low-calorie choices.
- Avoid overly spicy or greasy items.
- **Segment 1 (Young, loyal fans):**
 - Focus on **trend-driven items** (limited editions, spicy/fun flavors).
 - Offer **customization** and **combo deals** (value for money).
 - Feature “Instagram-worthy” packaging and menu items.
- **Segment 2 (Middle-aged, price-sensitive):**
 - Focus on **classic, reliable products**.
 - Emphasize **consistency, quality, and value**.
 - Avoid niche or experimental items.

11.3 Price

Segment-Based Pricing Strategy:

- **Segment 0:**
 - Less price-sensitive, but motivated by **value and health**.
 - Introduce “**Healthy Value Meals**” or loyalty-based rewards.
- **Segment 1:**
 - Highly value-conscious and responsive to **discounts and bundles**.
 - Use **mobile app promotions, student pricing, or loyalty points**.
- **Segment 2:**
 - Price-sensitive; offer **clear value proposition** (e.g., “2 for ₹99”).
 - Use **price anchoring** with affordable base products and optional upsells.

11.4 Place

Segment-Based Distribution Strategy:

- **Segment 0:**
 - Ensure **comfort and cleanliness** in dine-in outlets.
 - Partner with **retirement or healthcare centers** for outreach.
 - Consider quiet zones or digital ordering kiosks for ease.

- **Segment 1:**
 - Emphasize **speed and convenience**—focus on **mobile app, drive-thru, and delivery platforms**.
 - Ensure **strong presence on Swiggy, Zomato, Uber Eats**, etc.
- **Segment 2:**
 - Use a **hybrid strategy**—accessible locations for dine-in and reliable takeaway/delivery.
 - Focus on areas with **working professionals or families**.

11.5 Promotion

Segment-Based Promotional Strategy:

- **Segment 0:**
 - Traditional media: **TV, print ads, email campaigns**.
 - Focus on **health messaging, senior discounts, and community events**.
- **Segment 1:**
 - Use **social media influencers, Instagram/TikTok ads, app notifications**.
 - Create **youth-driven campaigns**, challenges, or memes.
 - Promote **loyalty rewards** and app exclusives.
- **Segment 2:**
 - Use **WhatsApp marketing, email, and YouTube ads** with value messages.
 - Emphasize **consistency, family offers**, and “something for everyone” messaging.

11.6 Step 9 Checklist

Task	Status
Identified segment-specific product strategies	✓ Done
Tailored price approaches to segment needs	✓ Done
Matched distribution channels with preferences	✓ Done

Designed targeted promotional tactics

✓ Done

Aligned marketing mix holistically per
segment

✓ Done

Final Note:

Customizing the marketing mix ensures that **each customer segment feels heard and valued**. This not only increases **conversion and loyalty**, but also creates a **more efficient allocation of marketing resources**.